WE CLAIM:

1. A radiopaque and MRI compatible medical device for use in a body lumen, comprising:

a tubular-shaped body having a thin wall defining a strut pattern;

wherein the body includes a MRI compatible alloy, and the alloy further includes a ternary element selected from the group of chemical elements consisting of: iridium, platinum, gold, rhenium, tungsten, palladium, rhodium, tantalum, silver, ruthenium, hafnium, osmium, zirconium, niobium, or molybdenum; and

wherein the medical device exhibits a level of radiopacity and is MRI compatible.

2. The medical device of claim 1, wherein the weight percent of the ternary element is greater than or equal to about 5 and less than or equal to about 70.

3. The medical device of claim 1, wherein the weight percent of platinum is greater than or equal to about 12 and less than or equal to about 60.

4. The medical device of claim 1, wherein the weight percent of palladium is greater than or equal to about 8 and less than or equal to about 62.

5. The medical device of claim 1, wherein the weight percent of tungsten is greater than or equal to about 8 and less than or equal to about 66.

6. The medical device of claim 1, wherein the MRI compatible alloy includes a nickel-titanium alloy.

7. The medical device of claim 6, wherein an austenite finish temperature (A_f) of the nickel-titanium alloy in the medical device is less than or equal to about 37 degrees C.

8. The medical device of claim 6, wherein the tubular-shaped body includes raw tubing having an austenite finish temperature (A_f) of greater than or equal to -15 degrees C and less than or equal to 15 degrees C.

9. The medical device of claim 1, wherein the thin wall has a radial thickness between about 0.006 inches and about 0.002 inches.

10. The medical device of claim 1, wherein the body is non-superelastic.

11. The medical device of claim 1, wherein the body is a balloon expandable stent.

12. A metallic stent for medical applications, comprising:

a tubular-shaped body having a thin wall defining a strut pattern;

wherein the body includes a nickel-titanium alloy and the alloy further includes a third element selected from the group of chemical elements consisting of: iridium, platinum, gold, rhenium, tungsten, palladium, rhodium, tantalum, silver, ruthenium, hafnium, osmium, zirconium, niobium, or molybdenum;

wherein a weight percent of the ternary element is greater than or equal to about 5 percent and less than or equal to about 70 percent; and

wherein the stent exhibits a level of radiopacity and is MRI compatible.

13. The metallic stent of claim 12, wherein the weight percent of platinum is greater than or equal to about 12 and less than or equal to about 60.

14. The metallic stent of claim 12, wherein the weight percent of palladium is greater than or equal to about 8 and less than or equal to about 62.

15. The metallic stent of claim 12, wherein the weight percent of tungsten is greater than or equal to about 8 and less than or equal to about 66.

16. The metallic stent of claim 12, wherein the thin wall has a radial thickness between about 0.006 inches and about 0.002 inches.

17. The metallic stent of claim 12, wherein the stent is in an austenitic phase at body temperature.

18. A method for providing a radiopaque and MRI compatible metallic stent for medical applications, comprising:

providing a tubular-shaped body having a thin wall, wherein the body includes a nickel-titanium alloy and the alloy further includes a ternary element selected from the group of chemical elements consisting of: iridium, platinum, gold, rhenium, tungsten, palladium, rhodium, tantalum, silver, ruthenium, hafnium, osmium, zirconium, niobium, or molybdenum;

forming a strut pattern;

wherein the stent is radiopaque and MRI compatible.

19. The method of claim 18, wherein providing a tubular-shaped body includes melting nickel, titanium, and the ternary element, cooling to form an alloy ingot, hot forming the alloy ingot, forming the alloy ingot into a cylinder, drilling the cylinder to form tubing, drawing the tubing, and annealing the tubing.

20. The method of claim 18, wherein the weight percent of the ternary element is greater than or equal to about 5 percent and less than or equal to about 70 percent.

21. The method of claim 18, wherein the weight percent of platinum is greater than or equal to about 12 and less than or equal to about 60.

22. The method of claim 18, wherein the weight percent of palladium is greater than or equal to about 8 and less than or equal to about 62.

23. The method of claim 18, wherein the weight percent of tungsten is greater than or equal to about 8 and less than or equal to about 66.

24. The method of claim 18, wherein an austenite finish temperature (A_f) of the alloy in the stent is greater than or equal to zero and less than or equal to 37 degrees C.

25. The method of claim 18, wherein the ingot after melting includes an austenite finish temperature (A_f) of greater than or equal to 0 degrees C and less than or equal to 40 degrees C.

26. The method of claim 18, wherein the tubing includes an austenite finish temperature (A_f) of greater than or equal to -15 degrees C and less than or equal to 15 degrees C.

27. The method of claim 18, wherein the ingot is remelted.

28. The method of claim 18, wherein the alloy includes a quaternary element.